



THE COMMONWEALTH OF MASSACHUSETTS
OFFICE OF CONSUMER AFFAIRS AND BUSINESS REGULATION

**DEPARTMENT OF
TELECOMMUNICATIONS & ENERGY**

ONE SOUTH STATION

BOSTON, MA 02110
(617) 305-3500

MITT ROMNEY
GOVERNOR

KERRY HEALEY
LIEUTENANT GOVERNOR

BETH LINDSTROM
DIRECTOR
OFFICE OF CONSUMER AFFAIRS
AND BUSINESS REGULATION

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COMMISSIONER

JUDITH F. JUDSON
COMMISSIONER

BRIAN PAUL GOLDEN
COMMISSIONER

December 9, 2005

Werner Schweiger
Senior Vice-President, Operations
NSTAR Electric
One NStar Way
Westwood, MA 02090

Edward J. Dienst
Senior Vice-President, Distribution Operations
National Grid
55 Bearfoot Road
Northborough, MA 01532

Michael Smith
Director of Operations
Western Massachusetts Electric Company
One Federal Street, Bldg. 111-4
Springfield, MA 01105

Thomas Meissner
Senior Vice President, Operations
Unitil Corp
6 Liberty Lane West
Hampton, NH 03842-1720

RE: Distribution System Safety
Stray Voltage and Manhole Safety Assessments

Dear Sirs:

The Department of Telecommunications and Energy ("Department") has reviewed the final reports on (1) the Independent Assessment of Stray Voltage in Underground Distribution Systems of Massachusetts Electric Companies ("Stray Voltage Final Report") as prepared by Navigant Consulting, Inc. ("Navigant"), and (2) the Independent Assessment of Dislodged Manhole Covers ("Manhole Safety Final Report") as prepared by Siemens Power Transmission & Distribution, Inc. ("Siemens"). Both reports are attached. In initiating both assessments, the Department sought to determine the adequacy of the safety plans and inspection procedures currently used by electric companies and to seek expertise as to what additional actions, if any, should be taken by the companies to ensure the safe operation of their distribution systems. As detailed therein, the Final Reports make recommendations designed to enhance the safe operation of electric distribution systems in the Commonwealth.

The Department directs each company to submit, by 10 January 2006, its plan for implementation of the recommendations contained in the Final Reports.

The plans submitted on 10 January 2006 should pay careful attention to the level at which stray voltage would be detected. Detection equipment deployed today, as Navigant notes, is sometimes warranted at 24 volts. Navigant, however, recommends a 20-volt detection standard, which may exceed the warranted capability of detection equipment already owned by some companies. A sound plan must achieve a 20-volt detection level, even where that means acquiring more sensitive detection equipment not currently in a company's inventory, as this threshold ensures that all electric companies in Massachusetts will test for stray voltage at or above levels that are considered hazardous. Furthermore, Navigant stated that stray voltage is perceptible at or above eight volts and credibly suggested that detection levels as low as eight volts may also be practicable. We would expect your plan to address achieving, if feasible over time, detection at that level or at comparable levels. A sound plan will not be static: it will embody the longer-range goal to stay abreast of developments and improvements in detection capability and of procurement and deployment of more sensitive detection equipment as it becomes commercially available and of proven reliability. Training in detection will also be an important feature of a sound plan. Your plan would be incomplete if it failed to provide for setting and achieving a dynamic and evolving standard rather than a static one.

Companies should be ready to implement their inspection and maintenance plans in accordance with the recommendations contained within the Final Reports. A company seeking to depart from the recommendations in the Final Reports should identify those circumstances that warrant such departure.

Sincerely yours,

S
Paul G. Afonso, Chairman

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James Connelly, Commissioner

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W. Robert Keating, Commissioner

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Judith F. Judson, Commissioner

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Brian Paul Golden, Commissioner

cc: Mary L. Cottrell, Secretary
Andrew O. Kaplan, General Counsel
Timothy Shevlin, Executive Director
Ronald LeComte, Director, Electric Power Division
John Cope-Flanagan, Assistant General Counsel
Joan Foster Evans, Senior Counsel